Electronics and Computers

1995 TRI Releases for Electronics and Computers Manufacturing Facilities (SIC 367) by Number of Facilities Reporting (pounds/year)*

Chemical Name	# Reporting Chemical	Fugitive Air	Point Air	Water Discharges	Underground Injection	Land Disposal	Total Releases	Avg. Releases Per Facility
Nitric Acid	155	16,577	86,676	0	0	10	103,263	666
Ammonia	148	77,545	641,703	15,660	0	750	735,658	4,971
Copper[M]	118	1,810	3,998	548	0	11,165	17,521	148
Hydrochloric Acid (1995 and after "Acid	105	8,759	141,819	0	0	255	150,833	1,437
Hydrogen Fluoride	97	6,989	85,136	7,801	0	10	99,936	1,030
Phosphoric Acid	93	4,813	27,326	0	5	5	32,149	346
Sulfuric Acid	93	13,289	54,455	0	0	0	67,744	728
Copper Compounds[M]	84	3,571	10,947	2,035	0	2,441	18,994	226
Certain Glycol Ethers	41	49,989	259,575	12,373	0	12,000	333,937	8,145
Nitrate Compounds	39	62	1,634	212,913	0	4,510	219,119	5,618
Methanol	35	76,379	295,749	2,363	0	0	374,491	10,700
N-methyl-2-pyrrolidone	35	4,340	142,062	1,500	0	13,250	161,152	4,604
Formaldehyde[C]	31	6,990	36,018	250	0	0	43,258	1,395
Xylene (Mixed Isomers)	28	13,150	189,741	0	0	0	202,891	7,246
Ethylene Glycol	26	8,277	20,149	870	0	0	29,296	1,127
Sodium Dimethyldithiocarbamate	25	422	255	0	0	0	677	27
Lead Compounds[C, M]	23	1,289	3,159	530	0	0	4,978	216
Lead[C, M]	21	515	1,294	53	0	2,100	3,962	189
Methyl Ethyl Ketone	19	81,036	107,646	9	0	0	188,691	9,931
Toluene	17	43,159	416,403	59	0	250	459,871	27,051
Chlorine	15	2,047	2,825	0	0	0	4,872	325
Trichloroethylene[C]	14	102,201	366,797	0	0	0	468,998	33,500
N,N-dimethylformamide[C]	10	28,226	73,356	0	0	0	101,582	10,158
Nickel Compounds[C, M]	9	261	459	69	0	0	789	88
Zinc Compounds[M]	8	1,067	4,281	276	0	0	5,624	703
1,1,1-Trichloroethane[O]	7	21,755	69,787	0	0	0	91,542	13,077
Barium Compounds[M]	5	5	5	86	0	0	96	19
1,1-dichloro-1-fluoroethane[O]	5	58,850	33,274	0	0	0	92,124	18,425
Chromium Compounds[C, M]	4	10	5	182	0	0	197	49
Dichloromethane[C]	4	5,455	22,558	0	0	0	28,013	7,003
2-methoxyethanol	4	4,905	38,030	0	0	0	42,935	10,734
Tetrachloroethylene[C]	4	5,790	100,876	0	0	0	106,666	26,667
Antimony Compounds[M]	3	23	32	3	0	0	58	19
1,2-Dichlorobenzene	3	3,200	39,842	0	0	0	43,042	14,347
Methyl Isobutyl Ketone	3	561	39,763	0	0	0	40,324	13,441
Phenol	3	1,550	3,980	250	0	0	5,780	1,927
Arsenic Compounds[C, M]	2	0	0	3	0	0	3	2
Diisocyanates	2	0	0	0	0	0	0	0
Ethylbenzene	2	3,150	3,400	0	0	0	6,550	3,275
1,2,4-trichlorobenzene	2	0	9,305	0	0	0	9,305	4,653
Chromium[M]	2	0	0	0	0	0	0	0
Cobalt Compounds[C, M]	1	6	3	1	0	0	10	10
Formic Acid	1	250	750	0	0	0	1,000	1,000
Isopropyl Alcohol (Manufacturing,	1	625	0	0	0	0	625	625
N-butyl Alcohol	1	13	25	0	0	0	38	38
Naphthalene	1	0	400	0	0	0	400	400
N-hexane	1	251	803	0	0	0	1,054	1,054
Catechol	1	5	250	0	0	0	255	255
Manganese[M]	1	0	0	0	0	0	0	0
Nickel[C, M]	1	0	0	0	0	0	0	0
Cobalt[C, M]	1	0	0	0	0	0	0	0
Bromine	1	250	250	0	0	5	505	505
Ozone	1	0	45	0	0	0	45	45
	407**	659,417	3,336,846	257,834	5	46,751	4,300,853	10,567

[C] Known or suspect carcinogens [M] Metals and metal compounds [O] Ozone depleters

* Refer to Section III for a discussion of the TRI data and its limitations, methodology used to obtain this data, definitions of the column headings, and the definitions of carcinogens, metals, and ozone depleters.

**Total number of facilities (not chemical reports) reporting to TRI in this industry sector.

1995 TRI Transfers for Electronics and Computers Manufacturing Facilities (SIC 367) by Number of Facilities Reporting (pounds/year)*

Chemical Name	# Reporting Chemical	Potw Transfers	Disposal Transfers	Recycling Transfers	Treatment Transfers	Energy Recovery Transfers	Total Transfers	Avg Transfer Per Facility
Nitric Acid	155	18,808	12,408	120,884	369,329	249	531,686	3,430
Ammonia	148	922,789	3,366	6,450,618	359,677	249	7,736,699	52,275
Copper[M]	118	34,570	107,982	10,452,486	173,157	1	10,790,121	91,442
Hydrochloric Acid (1995 and after "Acid	105	31,997	1,011	1,139,645	716,546	1,496	1,892,347	18,022
Hydrogen Fluoride	97	31,912	39,548	30,143	451,171	336	553,110	5,702
Phosphoric Acid	93	50,574	48,183	244,006	54,046	249	397,058	4,269
Sulfuric Acid	93	486,605	0	22,340	184,738	.	693,683	7,459
Copper Compounds[M]	84	24,909	143,008	14,549,667	290,760	19	15,008,363	178,671
Certain Glycol Ethers	41	518,096	3,144	162,174	265,871	748,650	1,697,935	41,413
Nitrate Compounds	39	4,997,357	93,290	.	109,564	.	5,200,211	133,339
Methanol	35	185,734	900	76,920	80,957	1,311,953	1,656,464	47,328
N-methyl-2-pyrrolidone	35	361,962	41,362	2,015,615	592,498	934,312	3,945,749	112,736
Formaldehyde[C]	31	161,952	120	37,000	4,678	.	203,750	6,573
Xylene (Mixed Isomers)	28	541	13,053	40,600	243,216	2,506,507	2,803,917	100,140
Ethylene Glycol	26	1,023,761	581	.	96,655	319,452	1,440,449	55,402
Sodium Dimethyldithiocarbamate	25	19,981	100,935	196,347	263,811	.	581,074	23,243
Lead Compounds[C, M]	23	2,061	1,059,069	3,738,859	139,378	100	4,939,467	214,759
Lead[C, M]	21	4,064	28,738	981,129	3,735	19	1,017,685	48,461
Methyl Ethyl Ketone	19	0	250	1,955	32,182	507,364	541,751	28,513
Toluene	17	516	22,200	506,303	26,184	246,895	802,098	47,182
Chlorine	15	1,065	.	1,614,373	1,028	.	1,616,466	107,764
Trichloroethylene[C]	14	2,730	.	314,644	27,769	40,800	385,943	27,567
N,N-dimethylformamide[C]	10	0	.	.	13,397	41,242	54,639	5,464
Nickel Compounds[C, M]	9	2,561	4,545	74,694	30,751	700	113,251	12,583
Zinc Compounds[M]	8	2,020	417,475	397,857	95,561	.	912,913	114,114
1,1,1-Trichloroethane[O]	7	255	.	57,993	13,451	20,400	92,099	13,157
Barium Compounds[M]	5	505	145,401	522,726	65	.	668,697	133,739
1,1-dichloro-1-fluoroethane[O]	5	0	.	30,055	.	9,600	39,655	7,931
Chromium Compounds[C, M]	4	0	7,973	159	250	.	8,382	2,096
Dichloromethane[C]	4	772	50	165,888	269	30,860	197,839	49,460
2-methoxyethanol	4	1,800	.	.	550	2,700	5,050	1,263
Tetrachloroethylene[C]	4	0	27	241,053	577,822	314,000	1,132,902	283,226
Antimony Compounds[M]	3	0	24,447	26,707	.	.	51,154	17,051
1,2-Dichlorobenzene	3	0	71	.	6,241	380,900	387,212	129,071
Methyl Isobutyl Ketone	3	0	.	.	.	26,484	26,484	8,828
Phenol	3	2,380	.	.	2,710	228,820	233,910	77,970
Arsenic Compounds[C, M]	2	0	2,782	18,881	.	.	21,663	10,832
Diisocyanates	2	0	13,300	.	19,110	.	32,410	16,205
Ethylbenzene	2	0	5	.	700	227,750	228,455	114,228
1,2,4-trichlorobenzene	2	1,445	.	.	32,840	5,348	39,633	19,817
Chromium[M]	2	408	15,940	3,641	410	.	20,399	10,200
Cobalt Compounds[C, M]	1	0	4,276	.	.	.	4,276	4,276
Formic Acid	1	19,000	.	.	.	.	19,000	19,000
Isopropyl Alcohol (Manufacturing,	1	0	.	1,506	.	.	1,506	1,506
N-butyl Alcohol	1	0	.	.	.	4,999	4,999	4,999
Naphthalene	1	0	.	.	.	.	0	0
N-hexane	1	0	.	.	.	7,435	7,435	7,435
Catechol	1	15,000	.	.	.	.	15,000	15,000
Manganese[M]	1	0	266	4,075	160	.	4,501	4,501
Nickel[C, M]	1	5	4,003	4,265	7	.	8,280	8,280
Cobalt[C, M]	1	0	266	1,069	.	.	1,335	1,335
Bromine	1	5	250	.	.	.	255	255
Ozone	1	0	.	.	.	.	0	0
	407**	8,928,140	2,360,225	44,246,277	5,281,244	7,919,889	68,769,360	168,966

[C] Known or suspect carcinogens [M] Metals and metal compounds [O] Ozone depleters

* Refer to Section III for a discussion of the TRI data and its limitations, methodology used to obtain this data, definitions of the column headings, and the definitions of carcinogens, metals, and ozone depleters.

**Total number of facilities (not chemical reports) reporting to TRI in this industry sector.

Ten Largest Volume TRI Releasing Electronics Manufacturing Facilities Reporting Only SIC 367*		
Rank	**Facility[1]**	**Total TRI Releases in Pounds**
1	Zenith Electronics Corp., Melrose Park, Illinois	428,005
2	Toshiba Display Devices Inc., Horseheads, New York	280,598
3	IBM Corp., Hopewell Junction, New York	214,751
4	IBM Corp., Endicott, New York	113,500
5	Texas Instruments Inc., Dallas, Texas	76,185
6	Parker-Comerics Inc., Hudson, New Hampshire	71,000
7	Micron Tech. Inc., Boise, Idaho	67,955
8	NEC Electronics, Roseville, California	60,850
9	VLSI Tech. Inc., San Antonio, Texas	49,800
10	AT&T, Reading, Pennsylvania	46,855

Source: *US EPA 1995 Toxics Release Inventory Database*.
*Refer to Section III for a general discussion of TRI data and its limitations. A discussion of the methodology used to develop this table can be found under the heading *Ten Largest Volume TRI Releasing Facilities*.

Ten Largest Volume TRI Releasing Facilities Reporting Only SIC 367 or SIC 367 and Other SIC Codes*			
Rank	**Facility[1]**	**SIC Codes Reported in TRI**	**Total TRI Releases in Pounds**
1	Zenith Electronics Corp., Melrose Park, Illinois	3674	428,005
2	Toshiba Display Devices Inc., Horseheads, New York	3674	280,598
3	IBM Corp., Hopewell Junction, New York	3674	214,751
4	Delco Electronics Corp., Kokomo, Indiana	3089, 3469, 3471, 3674, 3679, 3694	161,105
5	IBM Corp., Endicott, New York	3672, 3674, 3679	113,500
6	Texas Instruments Inc., Dallas, Texas	3674	76,185
7	Parker-Comerics Inc., Hudson, New Hampshire	3674	71,000
8	Micron Tech. Inc., Boise, Idaho	3674	67,955
9	NEC Electronics, Roseville, California	3674	60,850
10	VLSI Tech. Inc., San Antonio, Texas	3674	49,800

Source: *US EPA Toxics Release Inventory Database, 1995.*
*Refer to Section III for a general discussion of TRI data and its limitations. A discussion of the methodology used to develop this table can be found under the heading *Ten Largest Volume TRI Releasing Facilities*.

[1] Being included on this list does not mean that the release is associated with non-compliance with environmental laws.

Source Reduction and Recycling Activity for Electronics and Computers (SICs 367) as Reported within TRI*

A	B	C	On-Site			Off-Site			J
			D	E	F	G	H	I	
Year	Quantity of Production-Related Waste (10^6 lbs.)[a]	% Released and Transferred[b]	% Recycled	% Energy Recovery	% Treated	% Recycled	% Energy Recovery	% Treated	% Released and Disposed[c] Off-site
1994	130	55%	4%	1%	47%	29%	5%	8%	8%
1995	156	47%	6%	2%	44%	30%	5%	8%	6%
1996	160	---	6%	2%	46%	28%	5%	9%	4%
1997	170	---	7%	2%	46%	28%	4%	9%	4%

Source: *1995 Toxics Release Inventory Database*.

* Refer to Section III for a general discussion of TRI data and its limitations. A discussion of the methodology used to develop this table can be found under the heading *Source Reduction and Recycling Activity*.

[a] Within this industry sector, non-production related waste < 1% of production related wastes for 1995.

[b] Total TRI transfers and releases as reported in Section 5 and 6 of Form R as a percentage of production related wastes.

[c] Percentage of production related waste released to the environment and transferred off-site for disposal.

Five-Year Enforcement and Compliance Summary for the Electronics and Computers Industry*									
A	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**
Region	**Facilities in Search**	**Facilities Inspected**	**Number of Inspections**	**Average Months Between Inspections**	**Facilities with 1 or More Enforcement Actions**	**Total Enforcement Actions**	**Percent State Lead Actions**	**Percent Federal Lead Actions**	**Enforcement to Inspection Rate**
I	104	73	312	20	16	22	77%	23%	0.07
II	90	61	316	17	13	19	42%	58%	0.06
III	99	76	556	11	9	14	100%	0%	0.03
IV	235	200	1,414	10	45	93	95%	5%	0.07
V	296	189	837	21	25	39	74%	26%	0.05
VI	96	54	232	25	13	26	77%	23%	0.11
VII	81	67	399	12	6	7	29%	71%	0.02
VIII	29	20	106	16	6	9	67%	33%	0.08
IX	190	105	266	43	14	18	67%	33%	0.07
X	30	18	62	29	3	4	100%	0%	0.06
TOTAL	1,250	863	4,500	17	150	251	80%	20%	0.06

*Data obtained from EPA's Integrated Data for Enforcement Analysis (IDEA) System. For a description of IDEA and the methods used to obtain this data, refer to Section II.C. A discussion of this table can be found under the heading, *Five-Year Enforcement and Compliance Summary*, in Section III.